

CLAIMS

Claims 1-23 (Canceled)

Claim 24 (Currently Amended): A method for cooling a seat of a transportation vehicle, comprising:

placing a seat insert over a seat cushion and below a seating surface of a transportation vehicle seat;

drawing ambient air to a location beneath a the seating surface of a transportation vehicle seat and into the insert and further into a mixing region of the seat;

mixing the drawn ambient air with a cooled fluid provided to the mixing region;
and

removing the resulting mixture from the mixing region.

Claim 25 (Currently Amended): A method for cooling a seat of a transportation vehicle, comprising:

placing a seat insert over a seat cushion and below a seating surface of a transportation vehicle seat;

drawing ambient air through a to a location beneath the seating surface of a transportation vehicle seat and into the insert and into a mixing region of the seat;

mixing the drawn ambient air with a cooled fluid provided to the mixing region;
removing the resulting mixture from the mixing region; and

providing the cooled fluid through the use of a thermoelectric device, the thermoelectric device including an active side and waste side and adapted to provide heating and cooling by passing electricity through the device, wherein the cooled fluid is provided by the active side of the thermoelectric device.

Claim 26 (Currently Amended): A method for cooling a seat of a transportation vehicle, comprising:

placing a seat insert over a seat cushion and below a seating surface of a transportation vehicle seat;

drawing ambient air to a location beneath ~~a~~ the seating surface of a transportation vehicle seat and into the insert and further into a mixing region of the seat with a fan;

mixing the drawn ambient air with a cooled fluid provided to the mixing region;

removing the resulting mixture from the mixing region by locating the fan down stream from the mixing region;

providing the cooled fluid through the use of a thermoelectric device; and

maintaining the pressure in the mixing region below the ambient pressure so that substantially all of the resulting mixture does not pass through the seating surface.

Claim 27 (Currently Amended): A method for cooling a seat of a transportation vehicle, comprising:

placing a seat insert over a seat cushion and below a seating surface of a transportation vehicle seat;

drawing ambient air to a location beneath ~~a~~ the seating surface of a transportation vehicle seat and into the insert and further into a mixing region of the seat with a fan;

mixing the drawn ambient air with a cooled fluid provided to the mixing region;

removing the resulting mixture from the mixing region by locating the fan down stream from the mixing region; and

providing the cooled fluid through the use of a thermoelectric device;

wherein the cooled fluid is provided by blowing cooled air into the mixing region while preventing substantially all of the resulting mixture from passing through the seating surface.

Claim 28 (Withdrawn): The method of claim 24, wherein the transportation vehicle is an automotive vehicle, and the cooled fluid is air.

Claim 29 (Withdrawn): The method of claim 28, further comprising the step of cooling air by passage of the air through a heat exchanger and advancing the air to the mixing region.

Claim 30 (Withdrawn): The method of claim 29, wherein the heat exchanger includes a thermoelectric device and the air is advanced by a fan.

Claim 31 (Withdrawn): The method of claim 24, wherein the mixing region is disposed at least partially within an insert.

Claim 32 (Withdrawn): The method of claim 24, wherein the mixing region is disposed at least partially between an insert and the seating surface.

Claim 33 (Withdrawn): The method of claim 32, further comprising defining the mixing region in a space of the insert that has a plurality of flow holes through which the ambient air is drawn.

Claim 34 (Withdrawn): The method of claim 24, wherein the mixing region is enclosed within an insert.

Claim 35 (Withdrawn): The method of claim 34, further comprising defining the mixing region in a space of the insert that has a plurality of flow holes through which the ambient air is drawn.

Claim 36 (Withdrawn): The method of claim 35 wherein the insert is attached in fluid communication with the fan.

Claim 37 (Withdrawn): The method of claim 36, wherein the fan and the thermoelectric device are secured internally within the seat.

Claim 38 (Withdrawn): The method of claim 36, wherein the seat comprises a seat cover disposed over the insert for defining a seating surface.

Claim 39 (Withdrawn): The method of claim 38, wherein the seat cover is made of a material selected from a synthetic material, a natural material or a combination thereof, and the cover is selected from a woven material, an unwoven material, a perforated material, an impermeable material, or any combination thereof, and the seat further comprises at least one foam seat or backrest cushion.

Claim 40 (Withdrawn): The method of claim 39, wherein the cooled fluid is provided by blowing cooled air into the mixing region while preventing substantially all of the resulting mixture from passing through the seating surface.

Claim 41 (Withdrawn): The method of claim 39, further comprising maintaining the pressure in the mixing region below the ambient pressure so that substantially all of the resulting mixture does not pass through the seating surface.

Claim 42 (Withdrawn): The method of claim 39, further comprising the step of exhausting at least a portion of the resulting mixture to ambient air.

Claim 43 (Withdrawn): The method of claim 40, further comprising the step of re-circulating at least a portion of the removed resulting mixture back into the mixing region.

Claim 44 (Withdrawn): The method of claim 40, further comprising maintaining the pressure in the mixing region below the ambient pressure so that substantially all of the resulting mixture does not pass through the seating surface.

Claim 45 (Withdrawn): The method of claim 40, wherein the cooled fluid is provided by blowing cooled air into the mixing region while preventing substantially all of the resulting mixture from passing through the seating surface.

Claim 46 (Withdrawn): The method of claim 24, wherein the seating surface includes a cover made of a material selected from a synthetic material, a natural material or a combination thereof, and the cover is selected from a woven material, an unwoven material, a perforated material, an impermeable material, or any combination thereof, and the seat further comprises a foam seat cushion.

Claim 47 (Original): The method of claim 24, further comprising the step of exhausting at least a portion of the resulting mixture to ambient.

Claim 48 (Original): The method of claim 47, further comprising the step of re-circulating at least a portion of the removed resulting mixture back into the mixing region.

Claim 49-50 (Canceled)

Claim 51 (Previously Presented): The method of claim 24, further comprising the step of placing a seat insert over a seat cushion of the seat and below the seat surface.

Claim 52 (Previously Presented): The method of claim 51, wherein the air being drawn below the seat surface enters the seat insert.

Claim 53 (Previously Presented): The method of claim 52, wherein the seat insert is in fluid communication with a fan.

Claim 54 (Previously Presented): The method of claim 53, wherein the fan is located downstream from the mixing region.

Claim 55 (Previously Presented): The method of claim 54, wherein the mixing region is formed at least partially within the insert.

Claim 56 (Previously Presented): The method of claim 55, further comprising the step of providing the cooled fluid through the use of a thermoelectric device, the thermoelectric device including an active side and waste side and adapted to provide heating and cooling by passing electricity through the device, wherein the cooled fluid is provided by the active side of the thermoelectric device.

Claim 57 (Previously Presented): The method of claim 56, wherein the thermoelectric device comprises a peltier unit.